

Claims

1. A motor vehicle assembly having an internal combustion engine, an exhaust gas treatment system associated with it, and fuel cell system, characterized in that the fuel cell system (4) is thermally coupled to the internal combustion engine (7) and/or the exhaust gas treatment system (3).
2. A motor vehicle assembly as specified in claim 1, wherein the fuel cell system (4) is thermally coupled to the intake area of the internal combustion engine (2), the air intake area (5) in particular, and/or the engine coolant circuit (39) of the internal combustion engine.
3. A motor vehicle assembly as specified in one of the preceding claims, wherein the fuel cell system (4) is thermally coupled to an exhaust gas return line (35) of the internal combustion engine (2).
4. A motor vehicle assembly as specified in one of the preceding claims, wherein the exhaust gas return line (35) is an internal exhaust gas return line of the internal combustion engine (2).
5. A motor vehicle assembly as specified in one of the preceding claims, wherein the thermal coupling is designed so that it may be engaged and disengaged.
6. A motor vehicle assembly as specified in one of the preceding claims, wherein the thermal coupling is available only during the cold start phase of the internal combustion engine (2) or the cold start phase of the exhaust gas treatment system (3).

7. A motor vehicle assembly as specified in one of the preceding claims, wherein the thermal coupling is effected by way of at least one medium.
8. A motor vehicle assembly as specified in one of the preceding claims, wherein the medium is at least one gas, at least one liquid, and/or at least one solid.
9. A motor vehicle assembly as specified in one of the preceding claims, wherein the thermal coupling is effected by system of at least one heat exchanger (37, 38).
10. A motor vehicle assembly as specified in one of the preceding claims, wherein the fuel cell system (4) has a heat dissipation system (26) and wherein the thermal coupling is connected to the heat dissipation system (26), preferably by way of at least one branch line (23).
11. A motor vehicle assembly as specified in one of the preceding claims, wherein the heat dissipation system (26) of the fuel cell system (4) conducts a hot medium, wherein the hot medium is coupled to the air intake area (5), the exhaust gas return line (35), and/or the exhaust gas treatment system (3) or is delivered to at least one of the systems specified in the foregoing.
12. A motor vehicle assembly as specified in one of the preceding claims, wherein the heat dissipation system (26) is in the form of a coolant circuit (36) and wherein the coolant circuit (36) and the engine coolant circuit (39) have a common coolant circuit (40).
13. A motor vehicle assembly as specified in one of the preceding claims, wherein there is associated with the heat dissipation system (26) at least one reformer (14), at least one gas cleaning system (15), and/or at least one fuel cell (16).

14. A motor vehicle assembly as specified in one of the preceding claims, characterized by a control unit (29) which covers the cold start phase and which engages the thermal coupling when the cold start phase is present.
15. A motor vehicle assembly as specified in one of the preceding claims, wherein the thermal coupling is disengaged by system of the control unit (29) when the cold start phase is not present.